

COSMOLOGY NEWSLINK

SPRING 1991

International Magazine of the Cosmos

No: 44



How Dinosaurs Died

How Oceans Were Formed

THE TRIANGLE

COSMOLOGY NEWSLINK

CNK

INTRODUCTION

Cosmology is the science of the Universe as a whole; a treatise on the structure and parts of the system of creation. The title COSMOLOGY NEWSLINK, was first formulated in 1972 to try and fit together many similar subjects which may or may not have bearings on each other, then perhaps leading to the answers or conclusions of some of them, if not all of earth's mysteries in which case this magazine has accomplished its function. The Title 'COSMOLOGY' was suggested by Mr. Patrick Dineen, of Co. Kerry, Ireland. We added the last LINK.

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EDITORIAL

Magazines of the small press variety come and go, mostly, go, never to be seen again. This is for many many reasons. Some try to make a living out of it. It depends on which subjects small press magazines carry, and whether or not the readers are kept interested enough to stay with that magazine. Cosmology Newslink falls into the category of 'a hobby', which encompasses the strange, weird, and wonderful. Due to it being what it is, CNK does and will never appear REGULARLY and 'on time', unless that is until one lovely day our fortunes may change, and then we shall be on course more regularly. However, one thing is certain, whatever the CAUSE of our lateness, we will always make an appearance sooner or LATER. If after TWO YEARS has elapsed then obviously CNK has for some reason gone out of circulation for good. I wanted to make this point clear in THIS editorial for Summer 1990. I also have other interests, plus my regular work to keep me off the typewriter. No editor of course wishes for his magazine to be so erratically inbetween issues, and to this end I am hoping for a new arrangement to transpire soon to bring out CNK more and more. So here's hoping that before 1991 this can be achieved.

NAME CHANGE

In keeping with this time of changes, it has been recommended by assistant editor, Dave Prockter we call CNK by a singular name of COSMOLOGY. We were about to do this but some opposition has arisen. We would like to know what the readers think. It has been said that COSMOLOGY is the science of where the universe came from, and we study much more than that in our pages. What do you think, write and tell us NOW, before the change-over!

David Prockter is taking a rest from writing for us and is on holiday until next time.

EDITOR, Edward Harris.

DEATH OF THE DINOSAURS

BY MARTIN DAWSON of the York Astronomical Society

I HAVE BEEN INTERESTED IN ASTRONOMY SINCE I WAS A KID AND I, LIKE MANY OTHERS FIND VARIOUS ASPECTS MORE INTERESTING THAN OTHERS. SOME FRIENDS OF MINE ARE "FANS" OF DEEP SKY OBJECTS i.e. GLOBULAR CLUSTERS, DOUBLE STARS, ETC.

My interests are more near to home. The Moon and the planets hold my fascination and like many others one tends to get a bit blasé about one's favourite subjects; you tend to become a bit of a "Know-It-All". So it came as a surprise to me back in March 1984 when Dr. Keith Hindley gave a talk to the York Astronomical Society called: "DEATH STARS AND DINOSAURS."

With talks as the Y.A.S, I tend to fall asleep! But this talk held me in rapture. This was hot stuff, therefore without trying to be too technical, and forgive me if I do, I will re-tell this lecture.

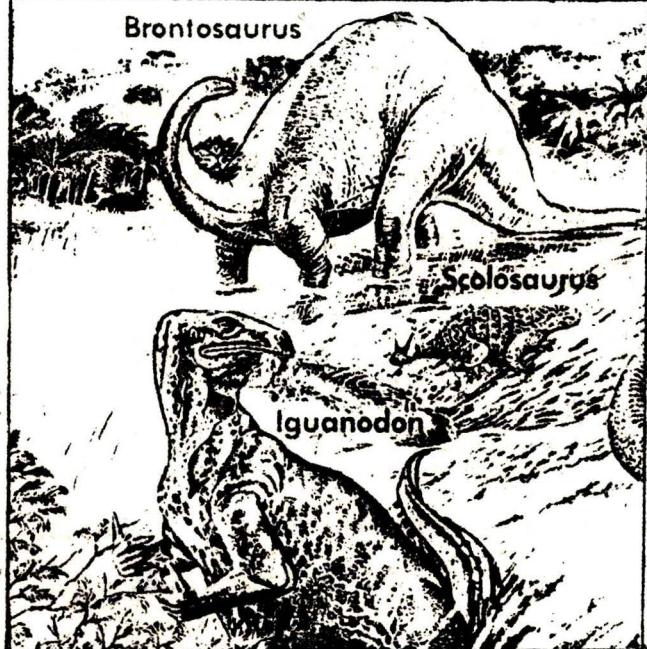
For a long time, it has been a mystery why the dinosaurs died out, after all they roamed the Earth successfully for millions of years. Some say that the Ice Ages ice pack encroached on the dinosaurs living space, others say that small mammals ate the huge creatures' eggs and that their reproduction consequently went down.



MARTIN DAWSON (Standing, left) at a meeting of the York Astronomical Society.

From 1980 to 1984 a team of scientists led by Louis Alvarez at the University of California worked on the theory that the Earth was the target for comets raining down from the outer solar system and that some of these comets smashed in to the Earth with catastrophic results. There was a number of factors involved which I will explain individually.

Firstly, iridium is a rare element on Earth and so Alvarez's team were surprised when in layers of sedimentary rocks laid down 65 million years ago unusually large concentrations of iridium was found. If such an element is rare on Earth, then where could it have come from? Outer space perhaps? It was 65 million years ago, the Cretaceous/Tertiary period, since the Dinosaurs disappeared, then perhaps a large comet smashed into the Earth throwing up huge amounts of dust rich in iridium carried by the comet. This dust would have surrounded the Earth high in the atmosphere blocking out the sun's light and heat. Did the dinosaurs die out because of the enforced cold? Secondly, if such a comet had smashed into the Earth where were the craters? All Alvarez's team had to do was to study photographs taken by NASA's Landsat satellites. One photograph showed an ancient crater rim forming Lake Manicouagan in Quebec. Another possible crater is the Prague Basin



in Central Europe and perhaps the Gulf Of Mexico is an ancient impact crater?

Studies made at the University of Chicago suggested that there seemed to be a rhythm of mass extinctions every 26 million years. Another study showed that the last mass extinction occurred only 11 million years ago and had been preceded by extinctions at 37 and 66 million years before. More studies had extinctions at 32 million year cycles with greater mass extinctions at every 225 to 275 million years. There was no obvious cause on Earth that could account for such long time periods, but there is one regular cycle that may hold the key.

The solar system takes approximately 250 million years to complete one orbit of the Milky Way Galaxy and that every 33 million years the system passes through clouds of dust called the Galactic Plane. This time period fits in with the extinctions, perhaps the dust itself every 33 million odd years blocks off sunlight to the Earth or perhaps dislodges comets from the Oort cloud? The "Oort Cloud", if you do not know, is a vast cloud of "sleeping comets" which lie far beyond the orbit of Pluto and Neptune and every now and then a comet (or comets) is disturbed and thus falls sunward. It is thought that all comets originate from this vast ring of dust that encircles the solar system approximately half a light year from the sun.

There are also a few other mysteries in the solar system itself. Why does the Moon have one side covered in craters and the other side relatively smooth? And yet planets of a similar size like Mercury and Mars have an even covering of craters. Why does Pluto's orbit take Pluto inside the orbit of Neptune? Was Pluto disturbed by some cataclysmic event in the dim past? How about Saturn? It is now known from results sent back by the Pioneer and Voyager probes that all the gas giants have faint rings around them. Why does Saturn have more spectacular rings than the other planets?

There is one train of thought that may hold the key to all these questions. Some scientists believe that a dark, cold companion to the sun is orbiting the sun in a highly elliptical orbit up to 2 light years away. This "Dark Star" would orbit the sun in approximately 27 million years passing once in its orbit through and disturbing the Oort Cloud. This disturbed matter would fall sunward, forming comets. If there were hundreds of comets they would collide with the planets, perhaps forming the gas giants' rings—especially Saturn's. The craters on Mercury, the Moon, and Mars may have been formed by these comets and finally, perhaps, one comet, a large one may have smashed into the Earth throwing up large amounts of dust blocking out the sun.

It is known that the Earth's climate was a lot warmer than today's levels and so this may account for the drop in temperature that probably killed off the dinosaurs.

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This scenario probably happened more than once, sometimes on a lesser scale than others. If this "Dark Star" orbits the sun every 27 million years then this scale factor would fit reasonably close to the mass extinction time periods mentioned earlier.

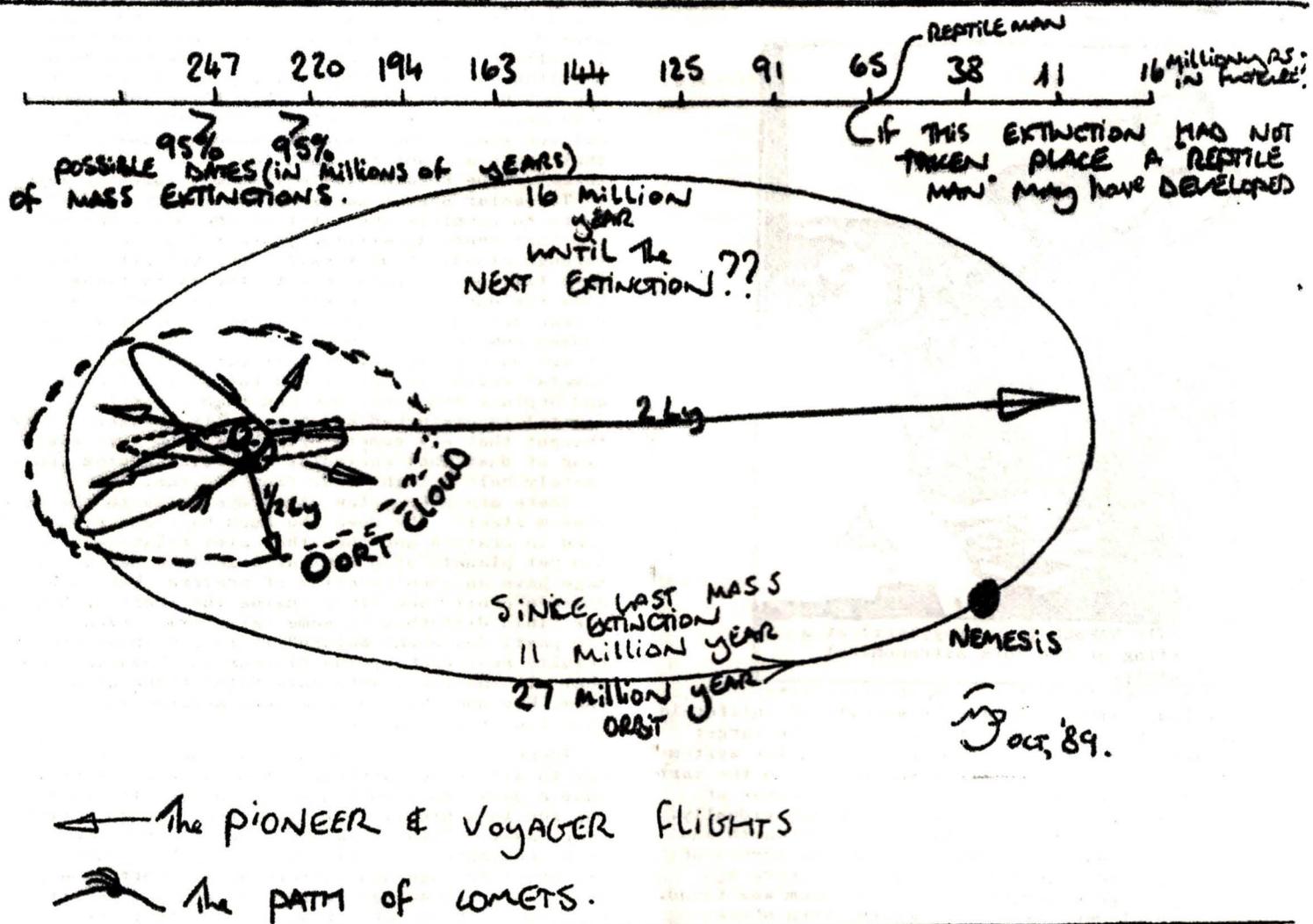
If the last mass extinction happened approximately 11 million years ago it should be possible to calculate when the next extinction may take place, if this "Dark Star" and the extinctions are linked and the "Dark Star's" Orbit has a period of 27 million years then it is not unreasonable to suppose the next large event may take place in 16 million year's time. As Man's knowledge expands we may learn a few more facts, perhaps this year's launching of the Galileo Probe to Jupiter and the Magellan Probe to Venus may provide a few more clues.

If such a "Dark Star" exists and there is no reason why it should not, then how about a name? One scientist suggested "Nemesis", the goddess of retribution...

Credit reference: "ASTRONOMY", March, 1985 page 18.

Martin Dawson Y.A.S.

Did these comets, millions of years ago, plunge into the Earth, causing the death of the dinosaurs?



Found: hole that killed dinosaurs

AN underwater crater 180 miles wide caused by an asteroid that plunged from outer space 65 million years ago could be the key to life on Earth.

Boffins claim the hole under the Caribbean sea led to the "big bang" which wiped out dinosaurs.

The scientists say the asteroid was six MILES wide.

It caused massive shock waves, fallout and dust that cooled the planet.

Plant eaters had no vegetation — and the meat-eaters had no prey once they died off, say

University of Arizona researchers Alan Hildebrand and William Boynton.

CREDIT: THE SUN,
Saturday, May, 19, 1990

COMETS:

As scientists look for clues as to why some of the Earth's life became extinct, some believing it to be the saga of the all-elusive comet. Let us now take a look at the comets and some of the theories in progress from the newspapers of the world:

Incipient comets believed near Earth

NEW YORK — A new study gives evidence that small icy objects are traveling near Earth's orbit, slamming into the Earth and moon and maybe growing into comets while hiding from astronomers.

Such "cometesimals," ranging in diameter from a few yards to a few tens of yards, may strike Earth every 80 years, researchers calculated.

The theory is offered in today's issue of the British journal *Nature* by Thomas Donahue and Tamas Gombosi of the University of Michigan at Ann Arbor and Bill Sandel of the University of Arizona in Tucson.

Daily News
12-10-87

Quick, tell Halley

CANBERRA (Reuters) — Halley's comet may have come from another solar system.

"We have evidence that the makeup of Halley's comet differs from all other substances in our solar system," said Bruce Peterson, an astronomer at Australia's Mount Stromlo Observatory.

He said Halley's comet may have formed elsewhere in the galaxy billions of years after our solar system was formed.

The theory, by a team of Australian, U.S. and French scientists, is published in the *Astrophysical Journal*.

Researchers Take New Look at Comets

Comets may be less like the material that existed in the birth of the solar system than most astronomers believe. University of Colorado at Boulder researchers speculate, instead, they say comets' characteristics have been altered over the last 4.5 billion years by heating by unusually bright stars and star explosions called supernovae.

"There's no such thing as a pristine comet," said J. Michael Shull, who presented the analysis with colleague S. Alan Stern in the current issue of *Nature*.

Scientists study comets, which are essentially dirty snowballs that formed at the birth of the solar system, for clues to the conditions surrounding the formation of the sun and planets.

Trillions of comets are thought to orbit the sun some 10,000 to 100,000 times as far away as the Earth's orbit, Shull said. Those comets have never been seen, but astronomers do spot comets that have left that orbit and swung in toward the sun. While still in their distant orbits, Shull and Stern contend, the comets have been heated to differing extents by very bright stars and by supernova explosions. That causes boiling that obliterates the original structure and chemical composition of the comet surfaces, they say.



Did a shower of comets once plunge our fair Earth into darkness eons ago and cause the death of the Dinosaurs? Will it happen again? If any of our readers have any interesting hypotheses that they would like to air in our pages, please write to the address on page 24.

Scientist Thinks Comets Created Oceans

Los Angeles Times

Saturday, April 2, 1988

By LEE DYE, Times Science Writer

A senior scientist with the Jet Propulsion Laboratory has discovered evidence that seems to support a controversial theory that the oceans were created by trillions of small, water-bearing comets plunging into the Earth's atmosphere over the last 3 or 4 billion years.

The evidence, which consists of several hundred images of small comets taken with a specially programmed telescope over a three-month period, is the latest twist in one of the most heated astronomical debates of the last few years—and it brought immediate skepticism from the scientific community.

The evidence surprised even its discoverer, Clayne Yeates, deputy project scientist for the Pasadena lab's Galileo Project, who emphasized that the findings are preliminary.

"I was very dubious about this whole thing," Yeates said. "The only thing I was trying to do was to see if the objects [comets] were really there. I thought there was a good chance we wouldn't see anything."

Instead, he captured images of small comets at the rate of about one every minute, indicating that they are entering the Earth's atmosphere and vaporizing by the millions every year.

That fits neatly with a revolutionary theory advanced two years ago by a team of scientists from the University of Iowa, a theory that so contradicted conventional wisdom that scientists around the world have devoted much of their efforts to laying it to rest. Until Friday, when Yeates revealed his findings through a JPL press release, they appeared to have succeeded.

"I thought this thing had died," said David Stevenson, professor of planetary science at Caltech.

Yeates stopped short of saying his work proves that the oceans were created by comets, but he said the evidence shows that water-bearing comets, up to 30 feet in diameter, are entering the atmosphere at an enormous rate that is consistent with the theory.

The theory was first advanced in 1986 by a team of scientists from the University of Iowa headed by physicist Louis A. Frank.

Over the course of five years, beginning in 1981, Frank's team studied thousands of observations from a research satellite, Dynamics Explorer 1, in polar orbit 14,500 miles above the Earth. The team found about 30,000 small, mysterious black spots in ultraviolet images of the Earth.

After puzzling for some time over what could have created the spots, the team concluded that the spots probably represented clouds of water vapor 180 miles above the ground that absorbed ultraviolet emissions from the Earth's atmosphere below. The clouds, they concluded, probably came from small comets, made mostly

Others Say Theory Is All Wet

of ice, that broke up as they entered the atmosphere.

After much soul searching, and correctly anticipating the furor that followed, Frank publicly theorized that millions of tiny comets, covered with black hydrocarbons that made them practically invisible and traveling so fast they were almost impossible to track, were bringing enormous amounts of water to the Earth every year, and probably had done so throughout the planet's history.

One of the biggest objections to the theory came from astronomers who insisted that if that were the case, the moon would be constantly bombarded by similar

comets and, since the moon has no atmosphere, the comets would arrive at the lunar surface intact, thus constantly creating thousands of new craters.

"How do you explain the fact that you don't see evidence of this on the moon's surface?" said JPL astronomer Don Yeomans, one of several scientists who voiced skepticism over Yeates' findings.

Nonetheless, Yeates insisted Friday that his evidence should be taken seriously.

For his research, Yeates used the 36-inch Spacewatch Telescope at Kitt Peak, Ariz., which is particularly well suited for tracking fast-moving objects. From November through February, he programmed the telescope to follow a course across the sky that corresponded with the course the comets would be expected to follow.

"It's like skeet shooting," he said, referring to clay targets used by shotgun enthusiasts to simulate birds in flight.

In all, he completed 1,500 exposures of 12 seconds each.

All images showed background stars as streaks of light of equal length, because the stars moved across the field of view as the telescope tracked the anticipated course of the comets. Comets appeared as much shorter streaks of light, moving in different directions from the stars.

"We were getting one [comet] every minute," he said.

Furthermore, the comets had the characteristics that Frank's theory had predicted: small and dark, suggesting that they were covered with hydrocarbons that held their water in check until they broke up in the atmosphere. And they were entering the atmosphere at a rapid frequency that was also consistent with Frank's theory.

If Frank's theory turns out to be

right, and few scientists believe that he will, it means much of the current theory of the Earth's evolution is dramatically wrong. For example, scientists have long believed that the oceans developed early in the history of the planet and have been evaporating slowly ever since. If Frank is correct, they developed much more slowly, and they are still growing.

It would be a precious victory for Frank, who laid his reputation on the line when he first announced the theory.

He told the Associated Press on Friday that he had "lost a lot of friends" over the controversy.

"I'm happy [about Yeates' observations], but it's been a long two years," he said.

Daily News - DE 3 '87

Farthest known object discovered

NEW YORK — Scientists say they have found the farthest known object in the universe, a quasar that may be about 81 billion trillion miles away.

Light from the quasar may have taken 13.8 billion years to travel to the Australian telescope where the observation was made, one researcher said.

Quasars are very distant objects that emit massive amounts of energy.

Analysis of light from the new discovery showed it was farther away than any other known quasar, researchers report in Thursday's issue of the British journal *Nature*.

The analysis measured the elongation of light waves caused by the quasar's movement away from Earth. The faster a quasar is receding, the farther away it is.

MARS: Life on Red Planet?

Los Angeles Times

AS SCIENTISTS IN THE ARIZONA DESERT READY THEMSELVES FOR AN EXPEDITION TO MARS IN THE NEXT CENTURY, BY BUILDING AN ENVIRONMENTAL EARTH HABITAT THERE, SCIENTISTS ARE STILL PONDERING OVER SOME OF MARS' MYSTERIES TODAY.

Soviet Space Exploration Plans Fuel Scientific Interest in Life on Mars

Saturday, March 26, 1988

By LEE DYK, Times Science Writer

SUNNYVALE, Calif.—The question of whether there is or ever was life on Mars has become a burning issue for a widening group of scientists, spurred in part by Soviet plans to explore that question in a series of ambitious missions to the Red Planet starting this summer and going into the next decade.

Scientists attending a three-day international conference that ended here Friday called for a renewed effort to search for evidence of primitive life on Mars despite earlier missions that left scientists with little reason to believe that life ever existed there.

The nagging question won't go away, several scientists said, because the Earth and Mars are believed to have been very much alike in their early history when life began on this planet.

Many scientists believe that the frozen soils of Mars might contain the best clues in the solar system to the origin of life, trapped and preserved in the very earliest stages of development.

A definitive answer to the question of whether there is or was life on Mars would require sophisticated new robotic vehicles that could roam freely over Mars—carrying out chores with little help or direction from Earth, making subtle distinctions between various geological structures and determining which rocks might be worth bringing back.

The Soviet Union plans to launch the first of a series of spacecraft to Mars this summer, and a subsequent mission will be designed to return samples to Earth. In the United States, the National Aeronautics and Space Administration is in the earliest stages of planning a similar mission, but that could not be carried out until the end of the century at the earliest.

Scientists attending the conference, sponsored by NASA's Ames Research Center, said getting equipment to Mars may be the easiest part of all.

Finding some evidence of primitive life, which probably exists in very few areas—if at all—would be the tough part.

Scientists are a little awed over the complexity of that task because it has been so difficult—here on Earth—to find fossils of primitive life forms. "Even if you are standing there, in the field, it is almost impossible" to know which rocks might be the most promising, said Don Lowe, a geologist with Louisiana State University.

Paleobiologists at the conference said the evidence that would most likely have been preserved would consist of "microbial mats," structures that look like rocks but are in fact fossils of microorganisms deposited in thin layers, forming objects called "stromatolites."

These ancient structures have been found in a few places on Earth, providing evidence of emerging biological activity that began when the planet was surprisingly young.

The earliest microorganisms probably developed "as soon as you had liquid water on Earth, within a few tens of millions of years," said UC Santa Barbara paleobiologist Stanley M. Awramik. That would suggest life probably began here when the Earth was only a few hundred million years old.

During its early history, Mars also had great oceans, as evidenced by erosion patterns there. Water on the surface of Mars may have existed until as recently as a billion years ago, scientists said, providing a possible catalyst that may have launched the biological process.

"If you have liquid water, inevitably you will have life evolve, and life as we know it," said Hyman Hartman, a biochemist and computer scientist at UC Berkeley who argues that life probably began in moist, iron-rich clays.

Mars, however, did not retain its oceans. Some of the water is believed to still lie beneath the surface, but much of it probably evaporated into space.

"When the water disappeared, life ended on Mars," Hartman add-

ed.

If he is right, then there should be evidence of that process somewhere on the planet. But "the odds of finding it are very remote," said Awramik. Other scientists are equally pessimistic.

A trained professional working on the surface of Mars who ran across a microbial fossil "would only have about a 1% chance of recognizing it," said paleobiologist Malcolm Walter of the Australian Bureau of Mineral Resources.

"There are many mimics" on Earth produced by the non-biological world that fool even the experts, he added, and that would surely be the case for Mars also.

An automated rover would have to make extremely subtle judgments on Mars, and it would also have to document the context in which the fossil was found in order for scientists to be reasonably sure that it is what it appeared to be.

"How do you program a rover as a field geologist?" Awramik mused during a public session Thursday night, hosted by the Pasadena-based Planetary Society.

Furthermore, scientists could not be sure of what the robot had found until after the rock was subjected to intensive laboratory analysis back on Earth.

That is a problem even on Earth. "In 90% of the cases, we can't be sure even after we get back to the laboratory," Walter added.

Question of Life

One curious departure between U.S. and Soviet scientists on the question of life on Mars is over whether life still exists there. Most American scientists believe that if life ever got started there, it has long since been wiped out. Soviet scientists repeated at this meeting, as they have elsewhere, that they are not so sure about that. A changing environment may have simply driven life underground where it continues to thrive, they argue. The Soviet rover will be designed to look beneath the surface for evidence of life.

"Mars is like our Siberian climate," quipped Mikhail Marov, a physicist with the Institute of Applied Math. "But in Siberia, believe it or not, we even have human beings."

Pact Furtters U.S.-Soviet Plans to Explore Mars

MOSCOW (UPI)—U.S. and Soviet officials on Friday signed an agreement they said could lead to the two nations placing experiments aboard each other's spacecraft and a joint mission to Mars.

Samuel Keller, deputy associate administrator of the National Aeronautics and Space Administration's Office of Space Science and Applications, said the agreement sets up "a strong possibility" the Soviets will set up experiments on U.S. spacecraft and vice-versa.

The two nations agreed to exchange scientific data from unmanned missions to Mars and Venus, in a follow-up to the treaty signed by Secretary of State George P. Shultz and Soviet Foreign Minister Eduard A. Shevardnadze in Moscow last April.

That pact renewed U.S.-Soviet cooperation in space after five years of frosty diplomatic relations.

First Step

The latest agreement sets the stage for U.S. participation in the July, 1988, launching of the Soviet probe Phobos to the Martian moon of the same name as a first step toward a manned flight to Mars.

The United States will have five scientists involved in the Phobos shot, but a proposal to double that number is under consideration, said Valery L. Barsukov, director of the Soviet Analytical Chemistry Institute of the Academy of Sciences, which is in charge of the data exchange.

The Soviets want to assign 10 of their scientists to the scheduled 1992 mission to Mars of NASA's Observer probe.

In the next issue of COSMOLOGY, our new title, we shall be taking a long look at the Mars programme and the experiment in the Arizona desert to lock scientists away for two years in a bid to simulate Earth's environment on the planet Mars. The project is now nearing completion and it is an exciting study to see if Man can create such an artificial 'Earth' on a hostile planet.



A GIZA PYRAMID ON MARS... Recent photo #76-H-593 Viking 1-61 P-17384 (35A72) taken from deep in space, near the surface of Mars suggests the possibility of natural or otherwise constructed, giant pyramids existing on Earth's neighboring planet. The much larger surface area glossy photo of this phenomenon may be obtained from (and thanks to Chris Lightner) c/o Bara Photographic, P.O. Box 486, Bladensburg, MD 20710 \$1.75 PPD.

L.A. TIMES-3-30-88

Loss of Antarctic Ozone May Peril Earth's Food Supply, Expert Warns

WASHINGTON (AP)—A veteran Antarctic researcher announced findings Tuesday indicating that the depletion of the Earth's ozone layer could threaten the world's food supply.

Prof. Sayed El-Sayed of Texas A&M University said increased amounts of ultraviolet light, which a thinner ozone shield permits to reach the Earth's surface, suppresses biological activity in microscopic marine plants in the Antarctic.

El-Sayed said his findings, the first of their kind, confirm strong suspicions of biologists that ultraviolet light might mean trouble for fish, animal and other life in the southernmost part of the world.

On the other hand, "I never underestimate the resiliency of nature," he said.

El-Sayed said it is impossible now to say whether the plankton—microscopic single-celled organisms—and the organisms that feed on them might adapt to increased ultraviolet radiation, and much work remains to be done.

Plankton and the tiny shrimp-like creature called krill that feed on them are the primary food source for the whole web of life in the Antarctic, including fish, penguins and whales. A baleen whale may eat three tons a day.

"If anything happened to the krill population, the whole ecosystem probably would collapse, and you can say goodbye to the whales and the penguins and the seals and the fish," El-Sayed told reporters at a briefing arranged by the World Resources Institute, a Washington environmental research organization.

Friday, November 27th, 1987/DAILY NEWS
OZONE HOLE IS DUPLICATED IN LABORATORY

WASHINGTON-- Scientists report they have duplicated the same ice cold conditions of the Arctic with chemical reactions, which they now believe lead to the annual 'ozone hole.'

DO SPACE MEN REALLY LIVE FOR CENTURIES?

By Gene Duplantier (Canada)

ALL UFOLOGISTS have read at one time or another that some space people profess to be hundreds of years old. At first this will seem hard to believe and will require some evidence. Persons on Earth have a hard time living to 75, let alone for centuries. I propose to show in the ensuing paragraphs that they could be telling the truth about their age. It's all a matter of relativity. Suppose an astronaut rocketts off into the galactic reaches and leaves his cousin on Earth who is the same age. After being in space for what is considered to be a year by Earth's time-instruments, he returns to Earth and finds his cousin has aged about 15 years. Now if our space traveller came back in 10 years' time, he would find that his cousin died many years ago and Earth 150 years older. The great scientist Albert Einstein studied

"light" and out of his thinking came his famous "Theory of Relativity. It was found, for example, that if two spacecraft, one travelling towards the sun, and one travelling away from the sun, the speed of light still reached them at 186,000 miles per second, regardless of the direction in which they were going.

You would naturally think that a spacecraft travelling at 150,000 miles per second would catch up to the speed of light. This is not true. Einstein concluded that time must be longer on the spacecraft than on Earth. In other words, the faster our astronaut travels, the more slowly time passes for him, as compared to Earth time. The slowing down of time makes up for our astronauts speed away from light, therefore making the speed of light appear to be the same. So now we have our traveller ageing only one year for every fifteen years that passed on Earth.

The next question that comes to mind is whether or not all this will be reversed when he returns to Earth and cancel out his youthfulness?

Einstein said this wouldn't happen, that as long as our astronaut travel-led, the slowing down of time would



GENE DUPLANTIER, Editor of *Delve*

continue. It did not matter what direction one travelled. In 1961, scientists in Geneva found proof of this in their experiments with "mesons". A meson is an atomic particle that has a lifetime of $1/1,000,000$ of a second. They sent a meson on a round trip at $\frac{1}{4}$ the speed of light, or 139,500 m.p.s. This meson was found to have lived $1\frac{1}{2}$ times its normal life span. In the future our galactic travellers will find they retain their youth upon returning to Earth after many years, while Earth will have aged considerably. Consequently, space people from other star systems could be using our time on Earth as a standard when contacting us, be hundreds, even thousands of years older than any one person here.

Perhaps their units of measurements are quite different from ours. In conclusion, let's not scoff at any of these seemingly fantastic tales we read about... fiction, our limited knowledge only clouding our understanding.

SHOWCASE STRANGE: From the dusty archives of COSMOLOGY NEWSLINK, we offer a unique conundrum of weird events, fascinating people and other oddities which simply don't make sense...

AT THE RIPE OLD AGE OF 90, John Hawley realised that he could not beat off the grim reaper forever. Accepting his eventual demise may happen at any time, with sadness he began to draw up his last will and testament, aided by a much younger business partner. The reason for his sadness was the certain knowledge that his last surviving relative was dead. Hawley's partner had deliberately misinformed him on this point; the relative was alive and well in Paris, France.

Believing that he was the last of his line, Hawley left his considerable fortune to the business partner who had lied to him. The crude will was locked in a safe. The very same day Hawley went into a coma from which he never recovered. Some months after his remains had been committed to the ground, his nephew arrived from France.

Both he and the business partner were present at the reading of the will. The scheming business partner must have worn a sly grin of satisfaction as he arrived for the reading. The will was removed from the safe, and to much astonishment, the schemer's hopes for a future life of bountiful prosperity were dashed beyond repair. The will now read that all monies were to be awarded to the nephew! How could the will have been changed by a man who, after it had been written, had lapsed into a coma and so to death? The question remains unanswered.

Haieh Hsuan, who was born in China in 1389 was reputed to have flesh which was completely transparent. Clearly visible from the outside were the internal organs and the bones structure of his body. He lived a fairly normal life, considering, and he dedicated his time on Earth to religious studies, attaining the prized Chu Jen Degree. In the fullness of time he became an official in the government of his country. He lived to the age of 75, and in 1572 a monument was erected in the Confucian Temple.

One of the greatest astronomers ever to peer into a telescope was Tycho Brahe who lived from 1546 until 1601. Brahe lost his nose in a duel, and so had an artificial one made of gold. Whenever he was in danger of losing a debate between himself and a colleague, he would remove it from his face and polish it. This usually distracted his opponents so much that they lost their concentration, and by and large, usually lost their argument as well.

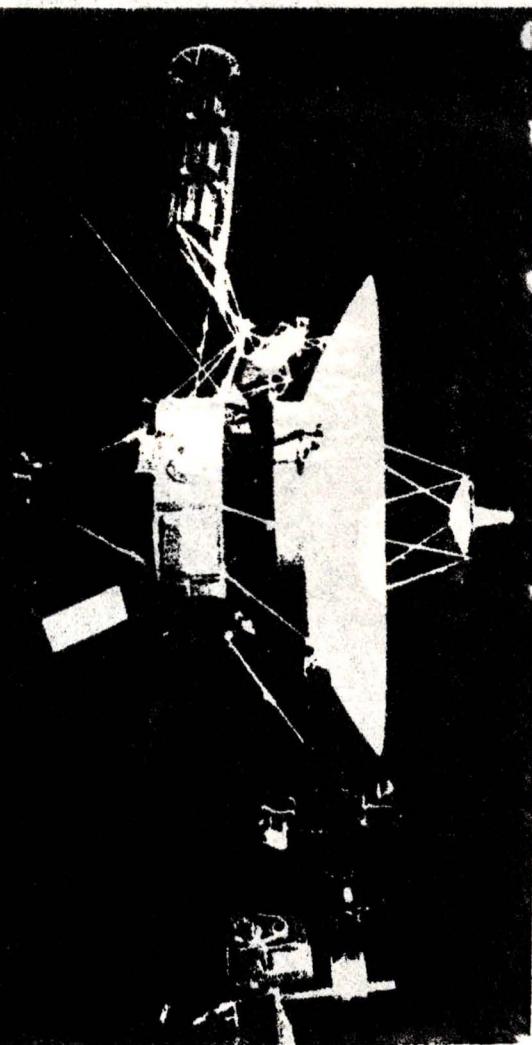
(To be continued) Compiled by Zara Jensen, David Prockter with help from Nina Fernbrook 1989-90.

NEWS FOR JUNE 1991: EDITORIAL NOTES.

DUE TO THE RECESSION and that our regular printer has moved away from this area, this magazine has not appeared for a year and a half. There is no 1990 issue. We have had to produce this issue of CNK by another not so good method, in the hope that having A magazine is better than having none at all. The next issue (I hope there will be one) will be produced the same method. The Editor apologises for the delay which was beyond our circumstances to control.

DEADLY ALGAE POSES A MARINE THREAT. The heatwave of 1989 has produced a poisonous, green plankton which glows in the dark. It has been poisoning fish, shrimps, crabs, etc which are food for larger sea animals. The algae called chryso cromulina, may be an environmental disaster. First appearing in 1987 off the Norwegian coast it has now spread to the north-east coast of England, and may spread as far as the Thames, to the Forth of Scotland. Looking like a variety of seaweed an environmental scientist said: "We have been dreading this. There is little we can do about it."

JULY 5 1988: Mother Finds Monster in Her Bath. Her 18 year old found a five ft lizard walking down the street and wanted to keep it as a pet in her bath. It may eventually go to Miami's Zoo.



MISSION OF THE DECADE!

Reports plus story from:
MARTIN DAWSON of the York
Astronomical Society, Edward Harris
Editor, plus other CNK reporters.

OUT BEYOND Neptune, out where the sun is just another distant pinpoint of light among the millions of other pinpoints in our galaxy, flies an unmanned spacecraft into the unknown.

Voyager 2, an American spaceship launched more than 12 years ago, swooped past Neptune's cloud tops late last summer and is now leaving our solar system to venture into interstellar space.

Voyagers 1 and 2 were launched from Cape Canaveral, Florida, in the late summer of 1977. Their mission: to explore the outer planets.



Voyager mission to
Jupiter—liftoff 1977; closeup of
spacecraft

The Grand Tour

The Genesis of Voyager.

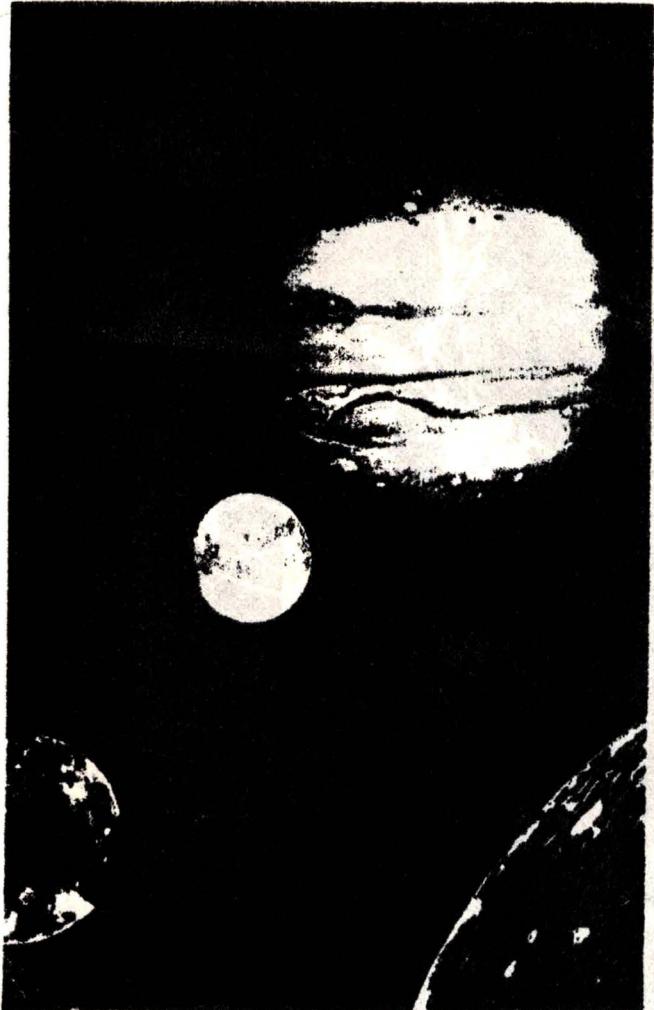
During the nineteen sixties, no one would have believed that in the last years of the nineteen eighties, a small 792 kg. spacecraft that could trace it's root's back to the sixties would still be operating and yet one of spaceflight's highlight's of 1989 showed that such a feat was possible.

In the early 1960's a significant astronomical event was discovered to be imminent, during the then future 1970's and 1980's the outer planets would be aligned in such a position that a spacecraft launched towards Jupiter could be "Sling Shot" towards Saturn where another "Sling Shot" manoeuvre would send the spacecraft on towards Uranus and yet again on towards Neptune and Pluto. Such an event would not take place again for 179 years, this was an opportunity not to be missed. In 1966, G.A.Flandro in America proposed such flight's in his,

"Fast Reconnaissance missions to the Outer Solar

System Utilising Energy Derived from the Gravitational Field of Jupiter".

Here was hope, a concept in which small relatively cheap spacecraft could be built, launched and flown with in a short, ten-year time scale. To launch any spacecraft to any planet requires energy in the form of a powerful rocket, a launch window and if the spacecraft is to perform any useful work, like take pictures, measure magnetic fields and radiation, etc. it will have to carry equipment



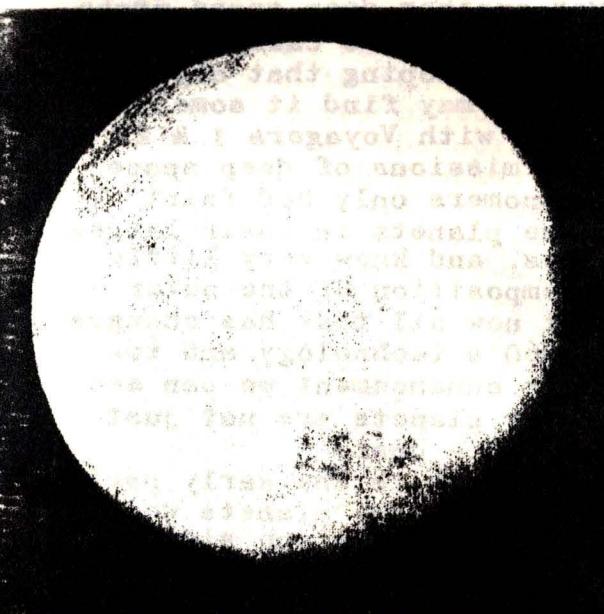
Jupiter with moons Europa, below, Ganymede, lower left, and Callisto, lower right;

and the results will have to be returned to earth by radio, this all means weight and weight in a spacecraft is important. The lighter a spacecraft is the more fuel and useful payload it can carry. Interplanetary travel is a very fine balance between success and failure because above all else reliability must be taken into account if such spacecraft were to succeed.

This flight plan was known as "The Grand Tour", in which two spacecraft would be dispatched, the first would have been launched in August, 1977 taking 8 1/2 years to fly-by Jupiter-Saturn and Pluto. The

The Grand Tour

second flight would begin in November, 1979 and would take 9 years to visit Jupiter, Uranus and Neptune, but early in 1972 the grand tour flights were shelved. The excuse given was cost but like a lot of space missions and plans in the early seventies, Grand Tour's funding was a victim of Vietnam, Public Apathy and the rise of inflation.

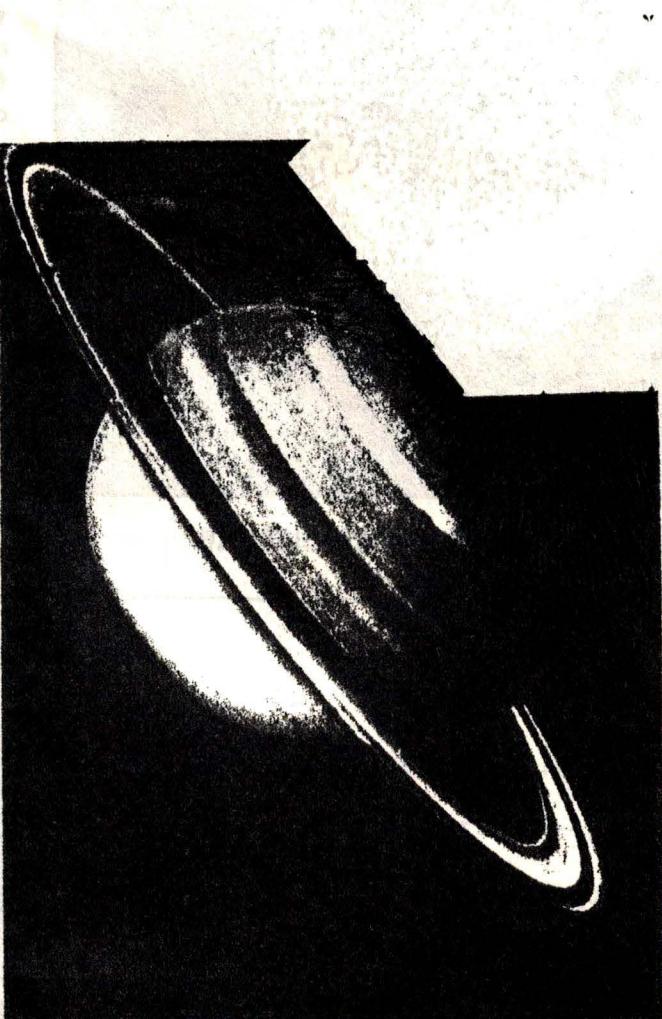


Europa, smallest moon of Jupiter

"T.O.P.S." was to be the answer, To Outer Planets Spacecraft, using nuclear powered electricity generators, advanced state of the art electronics and using the lessons learned from Pioneer. Two Mariner class spacecraft were planned to visit Jupiter and Saturn with one spacecraft having the option of visiting Uranus and Neptune, also planned were orbiters and lander probes but these ideas were passed on to Galileo (Which incidently has just started its 6 year voyage to Jupiter). There were so many changes to the two spacecraft that their names Mariner 11 and 12 were changed to Voyager 1 and 2. Problems arose with Voyager 2 before its launch which

if it was to have any attempt of visiting Uranus and Neptune, it could not be delayed, so Voyager 1 was flown in its place and renamed Voyager 2 and Voyager 2 was renamed Voyager 1, in other words the spacecraft swapped roles and names.

On the 20 August 1977 Voyager 2 was sent on its historic voyage to Jupiter, Saturn, Uranus and Neptune and on 5 September 1977 Voyager 1 was sent on its equally historic mission to Jupiter and Saturn. The rest is history. It is incredible to think that two small insignificant specks of space flotsom, The Voyagers are now on

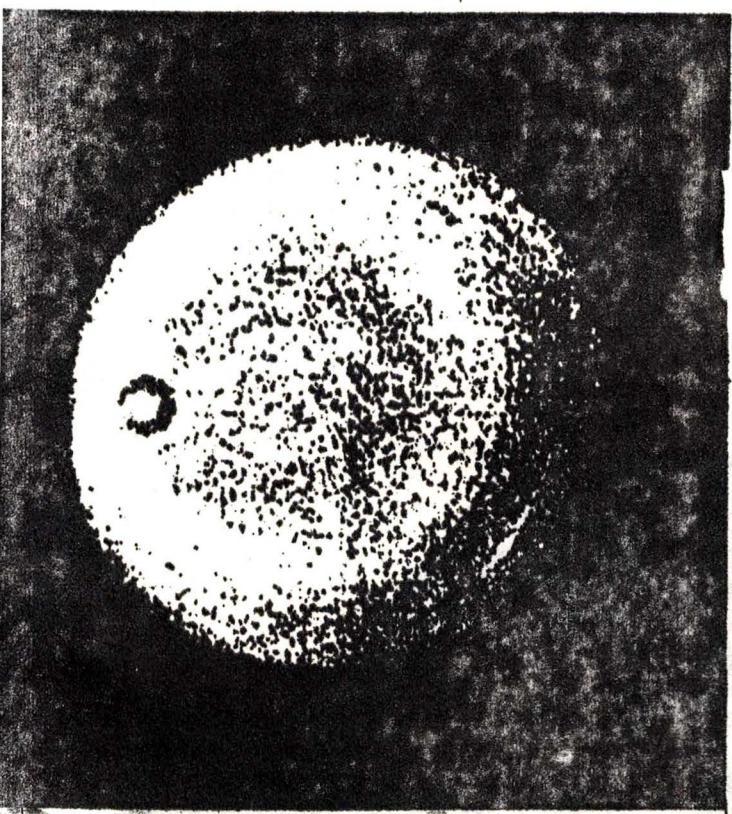


Saturn
(1980); planet's rings indicate different chemical composition;

Grand Tour

the edge's of the known Solar System billions of miles from home were they had there birth pangs nearly thirty years ago. Who knows some Pan-Galactic Spaceship may overhaul them and return them to Earth or maybe to some other planet in the far of future, I hope there fate is better than the one suffered by a Pioneer spacecraft in Startrek V.....

Martin Dawson, Y.A.S 1990.



Uranus (1986) shows discrete cloud:

Grand Tour

T.O.P.S.

Mariner Jupiter Saturn

Mariner 11 and 12

Voyager 1 and 2

Ref. Janes Spaceflight
Directory, 1984, pg. 140
Search the Solar
System, 1973, pg. 142
The Race into Space,
Brooke Bond Picture
Cards,
1971, card no. 47.
Inspiration from,
"The War of the Worlds".

The photographs seen in this journal are not drawings, but are computer enhanced images sent back by Voyager at the speed of light.

Voyager 2 is now leaving our solar system after travelling 4½ billion miles, and these photos took up to 3-4 hours to receive.

At its peak ultimate, Voyager 2 came to within three thousand miles of Neptune on Friday 25th August 1989, Photos sent showed its weather, new moons and rings.

Pioneer was another deep space probe launched in the 1970's carrying a plaque on board hoping that any intelligent life may find it some day as they might with Voyagers 1 & 2.

Before the missions of deep space probes astronomers only had faint images of the planets in their largest telescopes, and knew very little about the composition of the outer planets. But now all that has changed thanks to 1960's technology and today's computer enhancement we can see that the outer planets are not just craters and space dust.

Scientists knew in the early part of the 1970's that the planets were going to line up all on one side of the sun. This magazine printed the details, and it was feared there would be planetary catastrophe on Earth, due to it. But instead an idea came about of sending a deep space probe to the alignment of Earth, Jupiter, Saturn, Uranus, and Neptune, which occurs only about every 176 years,



view over horizon of moon
Miranda toward Uranus

GRAND TOUR

and a carefully aimed spacecraft could swing from planet to planet with each one providing a gravitational pull on the spacecraft, enough to send it onto the next lined-up world. Therefore in this way enough velocity was built up to send Voyager to its next mission.

There were two Voyagers, 1 & 2 each weighing 1,800 pounds and on board were radios, to conduct several experiments, and also TV cameras, infra-red and ultra-violet sensors and other instruments.

Jupiter was the planet they aimed for in the mission, and were amazed at the pictures sent back from the two spacecraft.

Discovered were active volcanoes on Jupiter's Io. It was the first time active volcanoes have been seen in our solar system. Eruptions from these were found 190 miles above the surface, and volcanic matter being hurled out at speeds of 2,300mph. But on Earth in comparison is only 112mph, (due to gravity). It was found Jupiter's Great Red Spot, unlike our storms, that have a low pressure centre, had a circulating region of high atmospheric pressure, and wind speeds of up to 335mph at the equator.

Lightning was seen too which is estimated at being 10,000 times more powerful than seen on Earth, which at one time led scientists to believe that Jupiter was about to erupt as a second sun due to the fact that it gave out more heat than Jupiter receives from the Sun. A ring was also discovered around Jupiter—the first ring to be found by a spacecraft.

Next in line for the Voyager's trip was Saturn, which took nine months apart, in November and August 1981.

Galileo, in 1610, studied Saturn's rings, he thought they were moons. Now Voyager reveals the true splendour of the planet's ring system, and when seen in motion by a computer, are spectacular.

There are circular rings, out-of-shape rings, dense and filament types. The particles that make up the rings vary from small granules to house size. Saturn has violent winds at its equator, and are the most ferocious in the solar system at speeds of 1,060mph. Saturn is so light that on Earth, in the sea, it would float. Titan, Saturn's large moon is to be investigated soon in around 1992 with an advanced new probe. Voyager 1 went past Titon. Voyager 2 pressed on however and its new target was Uranus which was reached in January 1986. Not much detail was seen on its surface (page 14). It appeared to be a large green-blue gas ball. Uranus' moons were more spectacular. Miranda revealed an array of variety in geology. (page 14) Next came Neptune which was the forth and last planet in the journey. From a distance of three billion miles from the sun, the radio signal sent back some new information. The signals took over 4 hours to reach Earth from the craft, even at the speed of light, due to the vast distance. It was the closest Voyager had ever come to a planet filling up TV screens. It skimmed over the planet's Northern Hemisphere at an altitude of 3,000 miles brushing almost Neptune's cloud tops. Sharp pictures showed a turbulent atmosphere of violent storms. One white streak was dubbed the 'Scooter'. Also the probe showed us Neptune's Great Dark Spot, as big across as Earth, similar to Jupiter's Great Red Spot. Neptune's largest moon, Triton, showed us a rocky surface with signs of icy activity. Triton seems to be the coldest place so far in our solar system.

A photo of Triton appeared on the front cover of CNK 43. Scientists hope the twin spacecraft will be trackable for another 25 years to come, as they hurtle out of our solar system into deep space at 37,000mph. However once they reach interstellar space they will go on forever unless they meet up with something that may destroy them.

Edward Harris, Editor.



Rings of Saturn



Peek at a Martian Moon

The small orbiter that looks like a baked potato probe, and the small means of communication from the Soviet space probe Phobos 2 from the planet Mars (in September). A camera aboard the spacecraft, which was launched last July, took the first ever colour picture of the Martian moon, Phobos. Last week, the probe was within 150 feet of the moon, which is only nine miles in diameter, and drove two landers down to its surface. One of the landers will hop around the rocky surface, sampling and analyzing its soil, and broadcast the data to the spacecraft, which will return back to Earth.

This is the news clip we were going to show in the last mag. but was misplaced. It has been sent to us by Trisha Donoethue of California, U.S.A (1989). Trisha has joined us as a reporter and hopefully will try to send us information from time to time. Thanks, Trisha.

ADVERTISERS (Exchanges)...

I wish to thank all those UFO and other groups that still sent me their exchange journals despite CNK being hit by this governments recession. Some I have lost the addresses of but the remainder:
RATTLES TALE: Anthony North Ent.,
BCM Keyhole, London, WC1N 3XX

THE UFO DEBATE (magazine) 40,
Stubbing Way, Shipley, W. Yorks.

CUFOS USA: 2457 W. Petersen Ave.,
Chicago, Illinois 60659.

STRANGE PHENOMENA Magazine: Det-
Malcolm Robinson, 5 Tullibody
Rd., Alloa, Clackmannanshire,
Scotland, FK10 2LL

ORBITER: 43 Harrison Street,
Reading, MA 01867 USA.

JUST CAUS: P.O. Box 218, Coventry,
CT. 06238 USA.

SAF BULLETIN, Sweden.

EARTH Magazine.

MUNDO Newsletter: USA (Laura Mundo
has now died she was 76. James
Wales continues: 7803 Ruanne Court,
Pasadena, Md. 21122 USA.

BODY MIND Organisation: 18 Sawkins
Avenue, Great Baddow, Chelmsford,
Essex, England.

IUR Magazine: USA (address CUFOS)

JUST CAUSE: PO Box 218, Coventry,
CT. 06238. USA.

**NEW RELEASE OF GENE DUPONTIER'S
DELVE MAGAZINE...** Featuring the
1897 Arkansas Airship, Ghosts,
Electromagnetic signal communication
of living cells, Flying Saucers,
The Ummo Affair. Issue 5 from
Gene Duplantier: 17, Shetland St.,
Willowdale, Ontario, Canada, M2M
1X5. \$3.00 Canadian Dollars per
copy. Add extra for overseas or
write for details. NOTE: Mr. Dup-
lantier had a quick stop-over in
London early this year before
flying back to Canada.

ENIGMAS: From Malcolm Robinson (see
above) **PHANTOMS OF THE SOAP OPERAS**
By Jenny Randles is still being
reviewed. Interesting book so far.

LETTER FROM THE YORK ASTRONOMICAL:
Dear Ed. I don't think it's a good
idea to drop the name 'newslink'
as there may already be a magazine
called Cosmology, but I am not
certain. Also Cosmology is the
science where the universe came
from, and I think it's a bit lim-
iting title. What do you think of
those corn circles? Keep looking
up! **Martin Dawson, York Astronomical
Society.**

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EDITOR

NEWSFLASH!

— 1991 —

Bermuda Triangle

AMAZING FIND ON THE OCEAN BED. May 17. 1991

FLIGHT 19 FOUND



The riddle of the lost flight 19 in the Bermuda Triangle which went missing in 1945 may have been solved when divers hunting treasure on the ocean floor in Florida came upon the missing planes.

They found four of the aircraft almost intact, but the lead aircraft was found broken in half. The wrecks are now in the hands of investigators. Now at least one mystery has been uncovered, but what caused experienced pilots to crash in the first place?

The Bermuda Triangle has been claiming lives for centuries and in the past 100 years, sea and air disasters in that area have claimed more than 1,000 lives. One of the latest victims of the Triangle was the Brigantine Marques, star of the TV Onedin Line. It was found foundering during a Tall Ships race in 1984.

The wrecks of the Avengers, now in the hands of experts who will be trying to piece together the reasons why they ditched in the sea, which occurred more than 45 years ago.

There is a strangeness about this area in Florida, and it is said that Columbus saw some strange effects of curious glowing streaks of 'white water' and mysterious patches of light and foam, which are still visible today and have been seen by U.S. astronauts from space. Some of these weird effects have been instrument malfunction, spinning compasses, weather deteriorating suddenly without warning or reason, which comes in with a gathering yellow mist. Mystified pilots can be in danger if they are not aware of these situations in this area.

With the discovery of the Avenger bombers, and hopefully no secrecy is allowed to develop, maybe at long last we shall have some answers.

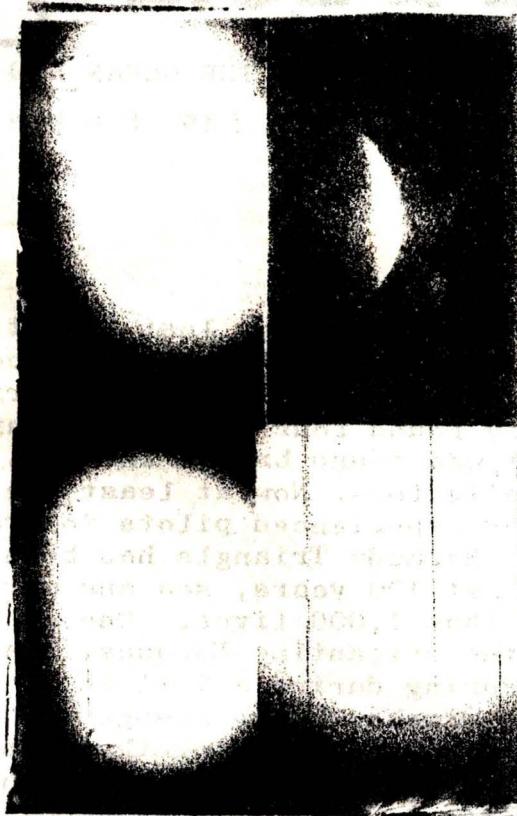
This area is one place where compass needle points are true rather than that of magnetic north. This has to be observed by flyers. During the search for the Flight 19 in 1945, a Navy Board of Enquiry was held to find answers to the disappearance. One member was heard to say: "They vanished completely as if they had flown to Mars." And another report from a radio amateur operator said he had picked up these words: (from the pilots) "Don't come after me. They look like they are from outer space." We can only speculate on this, and if true, would explain why all five aircraft were knocked out of the sky as the 'UFO' got near to them with its power source. The Avengers had enough fuel to cover 1,000 miles, and return to base after making practise bombing raids at a target wreck on Chicken Shoals north of Bimini atoll. Yet as experienced as they were the pilots got lost on

BERMUDA TRIANGLE DISCOVERY

a clear sunny day. One radioed back: "We seem to be off course. We cannot see land, we are not sure of our position. We seem to be lost." The tower said to bear due west. Back came the reply: "We don't know which way is west. Everything is wrong...strange...we can't be sure of any direction. Even the ocean doesn't look as it should."

E C L I P S E 1990

By Dennis Hayzer



I was out with my camera in 1990 looking at the night sky and I took these photos of the moon in eclipse. The last one was in 1986. On this occasion the 4 photos(right)were taken between 17.35-21.00hours on 9th February 1990. Using my Konica camera and a Tamron 2 x Teleconverter fitted to a Paragon 400mm telephoto lens. This made the camera up to 800mm telephoto lens.

The 2 x Teleconverter was set on manual and the shutter speed was set on B=bulb. The aperature ring was set on 6.3. All the photos were taken between 1-8 seconds.

The camera and equipment was set upon a tripod in my back garden. Unfortunately the weather was quite cold and cloudy.

Due to this 'printing' method we have had to use in this issue and the quality of photos due to cloud cover as well, the quality of them in this issue has been entirely lost. However here are details of the camera set up: PHOTO 1: SS2 aperature 6.3. TIME 6.03

PHOTO 2: SS2 Aperature 6.3. Time
6.37.

PHOTO 3: SSB Aperature 6.3. Time
8.08 seconds 5.

PHOTO 4: SSB Aperature 6.3 Time
8.59 seconds 8.

Dennis Hayzer

CORN CIRCLE FAKES

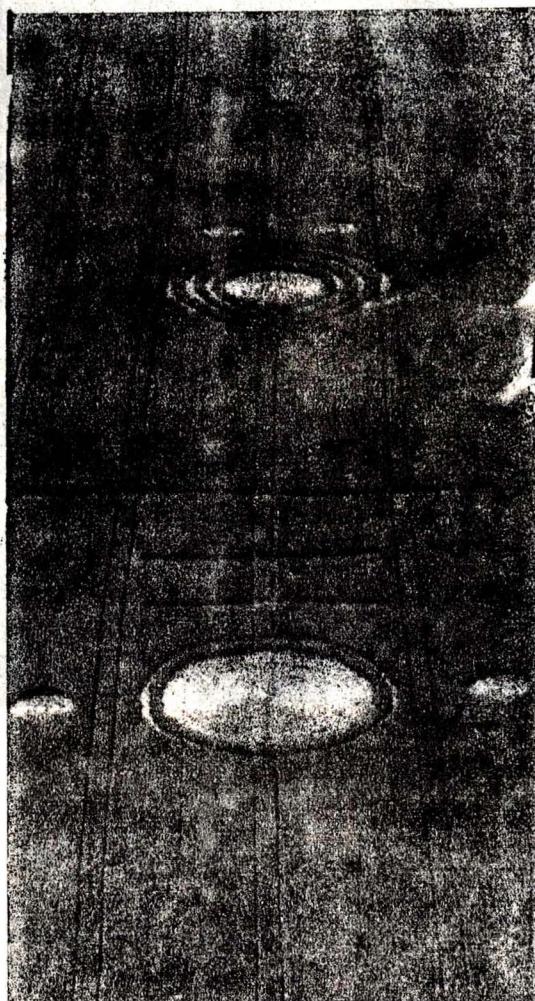
Compiled by the Editor

Of all the hoo-ha written about corn circles in the cornfields, it transpired to me that many of the circles, if not all of them, were once to be found in Southern England and that was suspicious. Places like Wiltshire. It is very easy to fall into the trap of believing they were caused by alien craft (UFO's), whirlwinds, hedgehogs, fairy rings etc. etc., when hoaxers could NOT be ruled out. In the Sunday People for July 29th 1990:

"WE HAVE SOLVED IT-HOW TO MAKE THOSE CORN CIRCLES." They showed a man, Fred Day, in action with a ball of string, a thin steel rod hammer, a papier mache tube and an aluminium hand-roller, four feet wide. Fred was busy making corn circles over 47 YEARS AGO. They were the result of a trick he learned in childhood. Fred, 59, showed People reporters how it was done, showing how simple it was to the £1 million-high tech sound and camera equipment being used in Wiltshire by "Operation Blackbird".

Fred said he uses tall wooden stilts to walk into a field to avoid leaving tracks, although I could see them in some

photos of corn circles. He followed tractor tracks as well. He hammered the rod into the ground, tied the string to the top and pulled it tight up to 24ft. This made the edge of the giant circle. Then he moved in a circle, pressing the corn down, first with his feet and then with the tube and roller until the ring was flattened. Fred had seen photos of crop circles in patterns and shapes and did not want to be outdone. But circle 'expert' Pat Delgado insists they are from a superior intelligence to warn us that we are destroying our



FAKE

Wiltshire hoax that fooled last week's Operation Blackbird...

world. Fred says this is all "poppycock" and that the only beings making circles are human ones! A farmer in Alton Barnes near Marlborough, Wilts has rings in his field but on investigation were no different from Fred's.

However, there is no convincing some people. Will the circles still appear now that the hoax has been confirmed?

But what if there are TWO kinds of corn circles? One set made by Man and the others by landed UFOs? There has to be a set plan to tell them apart: What IF the first recorded circle WAS a landed space craft? Was this the case of Wilfred Gomez and Simon Millington in March 1990? They were travelling through Kent leaving Margate behind when looking into the night sky they saw "a spiralling vortex of flashing lights, making a strange noise, appearance of an upturned TV satellite dish." They said it appeared to

brush the ground, then the lights blinked out. "It was unbelievable" they said. Fear aside, the teenagers went to the 'landing' spot. Nothing was seen. Instead there ahead of them was a corn circle. Closer to home, here in Essex, in Much Hadham, a farmer found one, in fact, several. Experts blamed this one on underground fungi, saying it attacks the roots enough to be blown down.

Circles were also found behind the Jolly Waggoners pub in Widford, and did someone attempt this in Dunmow in the summer of 1990?

The spooky side of Suffolk

By Andrew Clarke



Leiston ghost buster Brenda Butler

REPORTS of strange happenings, bright lights in the sky and spectral figures lurking in the darkness bring a charge of excitement to Brenda Butler.

Brenda, of Mafeking Place, Leiston, has been researching the paranormal for the last 25 years, spending countless nights in cold, damp graveyards and haunted houses across East Anglia.

"People would be surprised at the number of reported haunted houses, black magic rites and UFO sightings in Suffolk," she said.

Brenda was an official investigator for the British Phenomenon Research Society. She helped devise programmes on American and Japanese television and she also writes for a range of international magazines.

In 1983 Brenda along with her colleagues Dot Street and Jenny Randles published *Sky Crash*, a book which detailed the alleged landing of an alien spacecraft in Rendlesham Forest in December 1980.

She claimed that in the mid-1970s Elm Tree Farm at Aldringham was visited by an alien spacecraft. During the night an unidentified vehicle landed in a field, gouging out two large holes. Eyewitnesses said they also observed the spacecraft hovering over Sizewell A nuclear power station. Brenda has a blurred photograph of one of the holes.

"There were no tyre marks or footprints, just these two holes. Also the tops of trees around the field were burnt off," she said. The EADT reported several sightings over Aldeburgh and Sizewell at the time.

She said that once again sightings are on the increase. "The areas between Woodbridge, Rendlesham and Orford are particularly active and we are getting dozens of sightings every month. Just recently things seem to be on the increase. For some strange reason we get a dramatic increase in UFO sightings every seven years."

The reports included a new sighting in Rendlesham

Forest by a travelling salesman just before Christmas.

An elderly woman living at Orford reported a similar sighting in October. She described to Brenda how bright lights hovered outside her bedroom window. Several other Orford residents confirmed this strange happening.

In December two people living outside Leiston reported UFO sightings to the police, but neither would leave their names.

This was particularly frustrating because the U.S. airbases at Bentwaters and Woodbridge confirmed they had nothing flying in the area at the time. The two large spherical objects were described as hovering over isolated houses between Leiston and Snape and Leiston and Saxmundham.

"Ghosts and poltergeists are much more interesting because they are actually there to be studied. UFOs have usually disappeared," said Brenda.

However, in 1973 Brenda came to face to face with ten

strange objects hovering around a hill in Cambridgeshire. A BBC film crew accompanied Brenda and captured the event on film. "There was a huge orange ball just hovering in the sky and running around the hill.

"The villagers of Harston told us these lights were connected with a monolith on top of the hill. They said that black magic rites were held here and these lights were somehow connected with their rituals."

Unidentified flying objects are not the only aspects of Brenda Butler's research. At the moment she is devoting more time to the supernatural.

"There is an elderly man living in Leiston who has had a ghost following him since he was 14-years-old.

"He telephoned me to ask for help. He said that the ghost appears as an elderly nun. She comes to him at night and he believes saved him from several car accidents, appearing in the passenger seat in moments of danger."

Brenda asked the elderly man to speak to the spectre to ask her why she continues to come to him.

Has she ever been frightened? "I can honestly say no. I believe I have a guardian who watches over me. "When you walk into a building you can tell immediately if it is haunted by the atmosphere and the air temperature."

Brenda has investigated the stubborn spirits contained within the Black Horse public house in Leiston.

She said that a previous landlord, Mr. Fred Hammond, was unable to use the inside cellar because, he believed, the spirit was unwilling to release the cellar door. "When it was forced open a terrible smell came up from the darkness below. Then the door was slammed shut again as if it was attached to a very strong spring.

"Also at night lights would be mysteriously turned on and the taps behind the bar would be opened and

wash across the floor."

Mr. Larry Lamb, the current landlord, does not have the same difficulties, although he does admit the pub is haunted.

He said, "We regularly hear footsteps across the hallway. One evening my wife and I were watching television when we heard footsteps come up to the living room door. I got up and opened the door and there was no-one there. I sat down again and the footsteps continued their way along the hallway."

Her most disturbing experience happened several years ago at Bradfield Combust outside Bury St. Edmunds.

"I was out for an evening with friends. They were drinking in the local pub. I am not much of a drinker and went outside for a walk. The village graveyard is next door to the pub and I saw a coach and horses being pulled through the graveyard and beneath a tree stood this white shape.

"I asked the pub landlady about the churchyard and she explained that they had to close the lounge bar because of nightly visits by the ghostly coachman."

She said drinks would be interfered with and on occasions the spectre would appear behind the bar.

Now Brenda is working on her own and is looking for help with her investigations. Anyone interested should telephone her on Leiston 830757.

MYSTERY SPOOK ON AUSTRALIAN TV SHOW

Sent in by Zara-Loiuse Robinson

The story I want to tell took place in 1987 but had to wait this long to bring it to you for important personal reasons. There is someone I know who doesn't believe in anything like this, and so it is for the reader eyes only.

We have a show out here called: T W T (Terry Willisee Tonight). It is a current affairs programme. They went to this Hotel up in Queensland to investigate a ghost story. It was a routine thing, getting peoples' accounts of strange happenings. It was during one such interview that a strange shadow appeared. It was not on the wall, and when they all moved the shadow did not. They said it appeared to be between the camera and the wall - a shadow in mid air, so to speak.

A former owner of the pub was a woman in 1879 who was the longest owner. There was no history of any accidents etc., so presumably the ghost is of this woman. She wore black boots, period dress, tiny waist and grey scraped-back hair. The medium they used sketched the figure she 'felt' and it matched perfectly everybody's description of what they'd seen. She had not been told, and had no way of knowing. She said the woman was friendly and was curious as to the way things were being run and in short was "keeping a watchful eye on 'her' establishment".

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NEWSFLASH: A probe has been sent to Venus to map the surface by radar.

Although the Soviets had recently sent one there it showed certain aspects of the planet's surface, showing rocky areas. The reason why Venus was chosen is to study Venus's 'greenhouse' effect, and compare its carbon dioxide atmosphere with that on Earth to try and find answers to our own problem, because what is happening on Venus, is similar to the build up of gases on Earth. Pictures will be sent back in due course and we will bring you the news when it does.

P S Y C H I C H E A L I N G I N D A N B U R Y E S S E X

CNK takes a first hand look at Psychic healing.

Your editor and a friend, Teresa Garven, singer, had the opportunity last year (1990) to test spiritual healing for themselves, when they visited Stephen Turoff, of Danbury Essex. In a News Of The World report, Mr. Turoff and his assistant wife have been performing, what is reported as near miracles on very ill people.

Mr.Turoff, a former carpenter uses a letter-opener pen knife and a long-dead surgeon to heal the sick, by the name of Dr.Kahn, and sometimes spirit guide,Mr.Jones.

"I am scared stiff", he admits, "I don't know why I was singled out for this gift." He told the News of The World. He also told CNK that at first he just laid on his very hot hands-which burned people with the heat, but later started to go into trances and was later taken over by dead German Dr. Kahn."I have no recollection of anything afterwards," he said. At one healing session he 'operated' on Mr. Renford Stephen, 58, who complained of stomach pains. Mr. Turow off in a trance proceeded to take breaths and in a heavy German accent said: "You also have sinus trouble" and went through the motions of using a hypodermic syringe. The patient reacted as if he had been jabbed. Yet there was no syringe. Then a letter opener was inserted about an inch into his nostrils. Renford said to the News Of The World that he felt no discomfort, but the sinus problem had gone.

Next to be treated was an investigative reporter from the News of The world. He was diagnosed three years ago as having bone cancer. But only told Stephen he had back pains. The healer touched the man's head, arms, and legs, and then announced: "I shall not operate" but placed his hands on his back for 4 minutes. Trevor said later: "The heat from his hands was incredible, it was as if he'd placed a hot iron against me. I felt instant relief." Turoff touched the parts where the man had cancer of the bone. The man saw Stephen 3 times and after every session felt better, even when the pain was excruciating! Chemotherapy is a slow process and in the last



HEALER: 'I'm out in it for money' says Stephen

few weeks I've had to endure extreme agony. I found his treatment's very beneficial. It gave immediate relief on every occasion I saw him and I now feel at least 60% better.

NEWS OF THE WORLD REPORT 1990
Imperial Visit to Mr. Trump

In April I visited Mr. Turoff myself for a long standing back problem. Shortage of space prevents me from a full report, but to say that Mr. Turoff in trance DID use a scalpel on my stomach for something else and afterwards I too did not have as MUCH pain as before, although he did not cure me. I needed a further visit which I could not do, so I cannot be sure at this point. He charges £15 in a business-like-atmosphere and when Teresa asked him about this side of it he said the charge was so that he could carry on healing, instead of going to work, as it had become a full-time job on its own. "If people cannot pay, I treat them free." he told Miss Garven. In fact the telephone exchange melted its switchboard at one time when the press reported what he was doing. "Letters would arrive without an SAE for reply and it all takes money to finance" he added. Did he ever 'lose' a patient, your editor asked jokingly. His wife answered that sometimes blood is seen due to the very physical level worked on by the spirit surgeon but there is always full recovery. As a regular work, he does not work bank holidays or weekends. (To be continued)

YOUR HEALTH



ARE YOU ALWAYS IN THE DOCTOR'S SURGERY WITH THOSE MINOR HEALTH PROBLEMS? Many years study has resulted in a privately produced booklet; as the author does not like to see suffering when it can really be helped. Chapters on: THE AGEING PROCESS and its retarding. Vitamins explained and their function. Arthritis, ACNE, Asthma, Baldness treatments, back problems, cramps, cancer, colds and cold sores, congestion, digestion, Diet recipe, Dandruff, Eczema, Fatigue, Greying hair, Muscles, Ulcers, Skin, and much more, all condensed into a 19 page booklet. Asked to produce it by friends, now yours for, £2.30 includes post and packing.

To E. Harris C/O CNK PRESS, DPT HT, 16, Newton Green, Gt. Dunmow, Essex, CM6 1DU (cheques subject to clearance). Please allow 28 days for delivery, for:

HEALTH TIPS

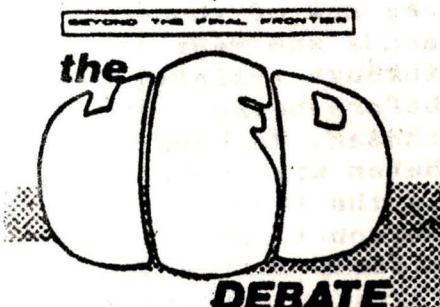
Your indexed guide to those minor problems. A CNK PRIVATE BOOKLET

***** IMPORTANT ANNOUNCEMENT

Because this magazine has a very unpredictable sporadic appearance sometime once a year, or 4 times, advertisers should bear this in mind when sending us material. We are NOT ignoring you. In our 'TIME MACHINE' you will have a long wait.

EDITOR

THE U.F.O. DEBATE IS PUBLISHED BI-MONTHLY AND IS EDITED BY DAVID BARCLAY WHO HAS OVER 40 YRS. ACTIVE UFOLOGICAL EXPERIENCE. FORMER BOOK REVIEWER AND FEATURE WRITER FOR THE MAGAZINES "DESTINY" & "THE UNKNOWN". AND THE AUTHOR OF "FATIMA - A CLOSE ENCOUNTER OF THE WORST KIND?". HE HAS BEEN ACKNOWLEDGED BY JENNY RANDLES, HERSELF AN EXPERT UFOLOGIST, AS THE MOST ORIGINAL THINKER IN MODERN UFOLOGY. HE WILL MAKE "THE UFO DEBATE" THE KIND OF MAGAZINE NO SERIOUS UFOLOGIST WILL WANT TO MISS.



PLEASE MENTION THIS MAGAZINE WHEN REPLYING TO ADVERTISERS: All advertisements are donated by well-wishers towards production costs of CNK. Write for details to our address: (ENCLOSING AN S.A.E.)

R A T T L E R' S TALE

A voyage of Imagination.

If you like a good mystery story then this neat little magazine is for YOU, for that spare moment. Worth a read.

TO: ANTHONY NORTH ENTERPRISES BCM Keyhole, London, WC1N 3XX. £5 brings 6 issues.

The booklet is fine, but the title is a little odd and does nothing to explain the contents, and for me a little off-putting. I nearly ignored it due to that. Otherwise a fine read on all.

EXCHANGE ADVERTS:

ENIGMAS, A Journal of Strange Phenomena: 5 Kellie Place, All 8a, Cack-Mannanshire, Scotland, FK10 2DW

EARTH magazine: 20 Stonegate

Road, Thorpe Edge, Bradford BD10 BD10 DHF. West Yorkshire.

Price: 95p each. Magazine of Myths & Mysteries of the Earth.

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SAF BULLETIN (Sweden) In Swedish with some English. Well made.

Astronomical News & Space: SOLNA ASTRONOMISKA FORENING, Box 2238, S-171-02 SOLNA, SWEDEN.

UFO DEBATE is a well printed A3 size magazine by David Barklay, full of everything you want to know on UFOs. Price to CNK readers: £8.50, 6 issues.

From: David Barclay, 40, Stubbing Way, Shipley, West Yorkshire, England, BD18 2EZ.

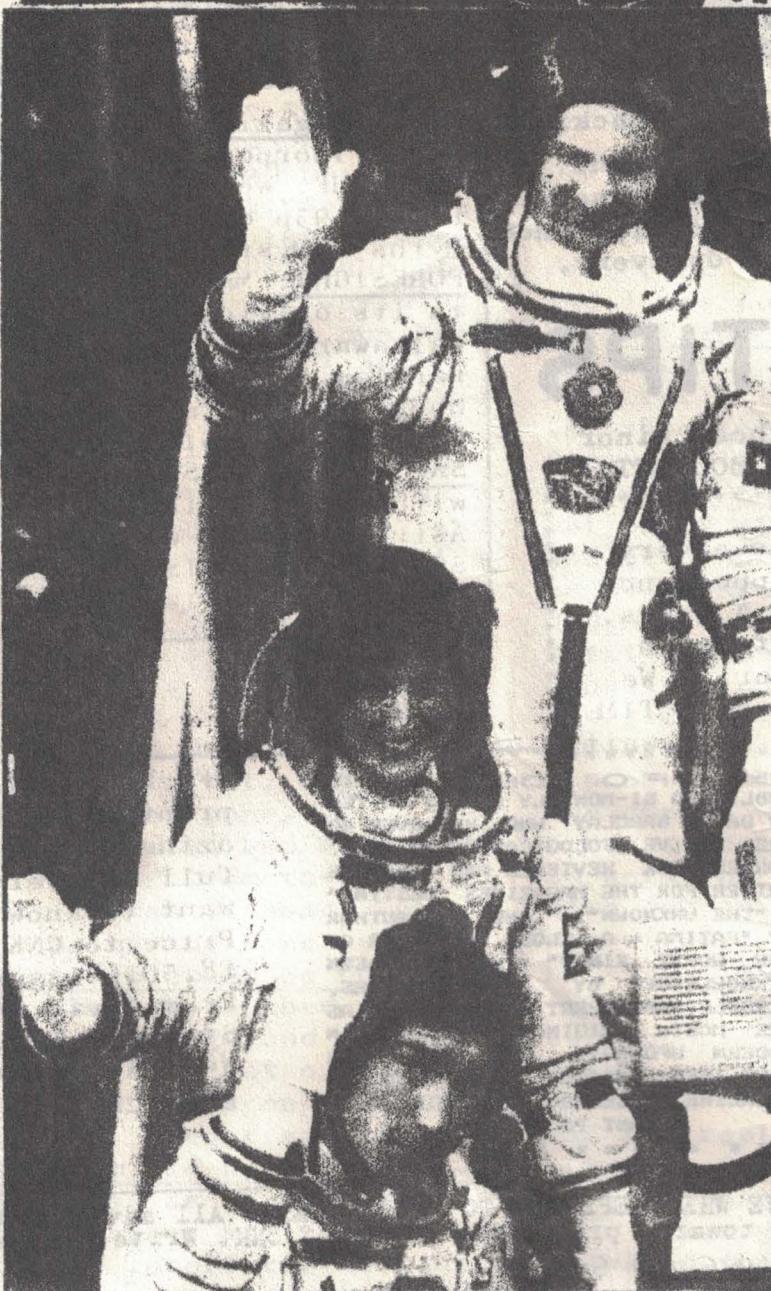
Cosmology Newslink International is published as a non-profit magazine for information exchange at: 16, Newton Green, Great Dunmow, Essex CM6 1DU.



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BACK FROM SPACE



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astronaut. She
was one of thou-
sands who went
through training
before being
chosen. We hope
Helen will not
be the last
person to be
offered such a
terrific adven-
ture in the
West. It was
for her a dream
come true to
see Earth from
space.